

CLAIMS

1. A method for creating data transformation routines for binary data for transforming said data from a source format to a target format, the method comprising the steps of:
 - 5 a) generating a source model of a source format element;
 - b) generating a target model of a target format element;
 - c) generating a mapping between said source model and said target model;
 - d) generating a transformation routine based on said mapping for extracting data from said source element and depositing said data in said target element.
- 10 2. A method according to claim 1 in which target models are generated for a plurality of target elements and a mapping generated between the source model and said plurality of target models.
- 15 3. A method according to claim 1 in which source models are generated for a plurality of source elements and a mapping generated between said plurality of source models and said target model.
- 20 4. A method according to claim 1 in which said transformation routine is arranged for transforming data in software code instructions from a source format code to a target format code and said routines are generated in said target format code.
5. A method according to claim 1 in which the mapping accounts for differences in endianness between the source and target models.
- 25 6. A method according to claim 4 in which the transformation routine is executed at the runtime of a program in said source code.
7. A method according to claim 1 in which said models relate bit positions to variable names for any given instruction.
- 30 8. A method according to claim 1 in which a group of source models and target models are provided wherein one or more models are applicable to a plurality of respective source or target instructions.

9. A method according to claim 4 in which said transformation routine is associated with a template providing a set of target format instructions semantically equivalent to said identified source instruction.

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10. A method according to claim 1 in which the transformation routine is arranged for transforming data from a database between a source database format to a target database format.

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11. Apparatus for creating data transformation routines for transforming data from a source format to a target format, the apparatus comprising:

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- a) a source model of a source element;
- b) a target model of a target element;
- c) a mapping between said source model and said target model;
- d) a routine generator for generating a transformation routine based on said mapping for extracting data from said source element and depositing said data in the target element.

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12. Apparatus according to claim 11 further comprising target models for a plurality of target elements and a mapping between the source model and said plurality of target models.

13. Apparatus according to claim 11 further comprising source models for a plurality of source elements and a mapping between said plurality of source models and said target model.

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14. A method according to claim 11 in which said transformation routine is arranged for transforming data in software code instructions from a source format code to a target format code and said routines are generated in said target format code.

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15. Apparatus according to claim 11 in which the mapping accounts for differences in endianness between the source and target models.

16. Apparatus according to claim 14 in which the transformation routine is executed at the runtime of a program in said source code.

5 17. Apparatus according to claim 11 in which said models relate bit positions to variable names for any given instruction.

10 18. Apparatus according to claim 11 in which a group of source models and target models are provided wherein one or more models are applicable to a plurality of respective source or target instructions.

15 19. Apparatus according to claim 14 in which said transformation routine is associated with a template providing a set of target format instructions semantically equivalent to said identified source instruction.

20 20. Apparatus according to claim 11 in which the transformation routine is arranged for transforming data from a database between a source database format to a target database format.

20 21. A computer program for transforming data from a source instruction to a target instruction, in accordance with the method of claim 1

25 22. A computer program according to claim 21 in which said transformation routines are implemented as routines in said computer program.

25 23. A computer program according to claim 21 operable to carry out said transformation at said runtime of a program in said source format.